

Amendments to the Specification:

Please replace the paragraph beginning at page 2, line 20 with the following rewritten paragraph:

Matching networks such as networks 20a-20c shown in Figs. 1-3 can include tuning elements that are fixed or variable. Variable tuning elements, which include variable capacitors, and/or variable inductors, provide a matching network with continuously adjustable impedance matching. Such continuous adjustability provides the benefit of continuously matching the impedance of an ac power source to a load that has transient and variable impedance. Thus, a controllable amount of energy may be transferred to a load. For example, if the load is a plasma having a transient and variable impedance, by supplying a controllable amount of energy to the plasma through impedance matching, the plasma can be maintained in a relatively stable state.

Please replace the paragraph beginning at page 5, line 25 with the following rewritten paragraph:

Energy transfer from the ac power source and first transmission line to the second transmission line and load is improved if the inductive length is at least one wavelength of the ac energy. Thus, in order to ensure energy reflected from the load back to the ac power source is effectively minimized, the inductive length should be at least one wavelength of the ac energy. AC energy traveling in transmission line 140a not inductively coupled to transmission line 140b is prevented from reflecting from ground be a trimming element 170. Trimming element 170 is typically a register resistor used to match the transmission line impedance to ground.